



# Chemical Demilitarization

Program Manager 256-895-1371

U.S. ARMY CORPS OF ENGINEERS

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## Background

The Department of Defense was directed by Congress through Public Law 99-145 to be the government agency responsible for destruction of the chemical weapons stockpile. To comply with treaty agreements and congressional mandate, destruction of these weapons was to be completed by 2007. An additional five-year extension was exercised so the program is planning to meet the 2012 deadline.

The Chemical Materials Agency (CMA) was created in February 2003 and combines the demilitarization and storage functions under a single organization. The program manager for Assembled Chemical Weapons Alternatives (PM ACWA) is responsible for the disposal of the chemical weapons stockpile at Pueblo, Colo. and Blue Grass, Ky., and has a deadline of 2017.

Huntsville Center is the Corps of Engineers' agent for facility design and facility construction of chemical demilitarization facilities. The U.S. Army Field Support Command, Rock Island, Ill., is the contracting agency.

## Active Construction Programs

- ***Pueblo Chemical Depot, Colo. and Blue Grass Chemical Activity, Ky.***

Public Law 104-208 established the Assembled Chemical Weapons Assessment (ACWA) program to study alternative technologies. In July 2002 the Department of Defense approved neutralization followed by biotreatment as the technology for the Pueblo facility. A systems contract was awarded in September 2002 to Bechtel National, Inc. Neutralization followed by supercritical water oxidation (SCWO) was selected as the technology for the Blue Grass facility. A systems contract was awarded in June 2003 to the Bechtel-Parsons team. Also in June 2003, the ACWA program formally changed its name to Assembled Chemical Weapons Alternatives (again ACWA) to better reflect its newly expanded role: overseeing the full-scale pilot testing of neutralization technologies to destroy the chemical weapons stockpiles in Colorado and Kentucky. Design and construction activities are ongoing at Pueblo and Blue Grass while permitting activities continue development with Colorado and Kentucky Environmental agencies. A law was passed requiring ACWA to complete destruction by 2017. The program is evaluating the feasibility to meet the deadline based on funding availability.

- ***Shchuch'ye Chemical Weapons Destruction Facility, Russia***

Together with other countries, the U.S. government (USG) has committed to assist the Russian Federation (RF) in the destruction of its chemical weapons. In December 1996, the Huntsville Center awarded a contract to manage, conduct research and development, design and construct facilities to assist Russia in executing its chemical weapons destruction program. In 2007, the USG and RF agreed to a "Trilateral Approach" with the RF awarding and managing the construction contracts and the USG verifying progress and paying for work originally budgeted to be performed by U.S. subcontractors. The Russian government will perform quality control of the remainder of the construction. The U.S. government will provide technical support and continue to provide oversight. Construction is nearly 85 percent complete. The completion is expected in mid 2010.

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- **Bio-Threat Reduction Program – Azerbaijan**

The Defense Threat Reduction Office – Biological (DTRO-B) is assisting the Azerbaijan government in designing and building a Central Reference Laboratory, in Baku, Azerbaijan. A state of the art medical facility similar to our Centers for Disease Control in the U.S. The government of Azerbaijan has a system of laboratories spread throughout the Rayons (i.e., counties), and they are ready to tie all of the information back into one central facility in Baku. They will be studying and verifying issues such as Avian Bird Flu, Swine Fever, Plague, etc. The U.S. has an interest in this effort through the Defense Threat Reduction Agency in regards to foreign aid as well as stopping severe outbreaks before they spread to our local and distant interests. The U.S. paid for the design. Huntsville Center is supporting DTRA by providing design and construction management oversight.



Central Reference Laboratory in Azerbaijan

## Construction Complete Programs: Incineration and Alternatives

The program for chemical demilitarization was originally awarded and constructed using an incineration technology and five sites were constructed with this design.

- **Johnston Atoll (JACADS) in the South Pacific** — Disposal operations were completed in November 2000 and closure activities have been completed at the pilot facility.
- **Deseret Chemical Depot, Utah** — Disposal operations are more than 65 percent complete at Deseret Chemical Depot. This plant was the first of eight facilities in the continental U.S. and contained the most chemical weapons to be destroyed.
- **Anniston Chemical Activity, Ala.** — The Army awarded a contract for construction and operation of an incineration facility in February 1996 to the Westinghouse Electric Corporation, now The Washington Group. Construction began in June 1997 and was completed in June 2001. Agent destruction operations began in August 2003.
- **Umatilla Chemical Depot, Ore.** — The Army awarded a contract for construction and operation of an incineration facility in February 1997 to Raytheon Demilitarization Company, now The Washington Group. Construction began in June 1997 and was completed in August 2001. Agent destruction operations began in September 2004.
- **Pine Bluff Chemical Activity, Ark.** — The Army awarded a contract for construction and operation of an incineration facility in July 1997 to Raytheon Demilitarization Company, now The Washington Group. Construction began in February 1999 and was completed in November 2002. Agent destruction operations began in September 2004.
- **Aberdeen Proving Ground, Md.** — *Alternate to incineration technology for disposal (neutralization followed by biotreatment).* In October 1998, a contract for the Aberdeen facility was awarded to Bechtel National, Inc. In 2001, the Department of Defense approved a plan to accelerate destruction of the chemical agent. Construction at Aberdeen was completed in August 2002. Agent destruction operations began in April 2003 and were completed in 2005.
- **Newport Chemical Depot, Ind.** — *Alternate to incineration technology for disposal (neutralization followed by super critical oxidation).* In February 1999, a contract for the Newport facility was awarded to Parsons Infrastructure. An accelerated destruction plan for Newport was approved, and construction of that facility was completed in June 2003. Agent destruction operations began in 2005 and were completed in 2008.